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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/811,001 | 03/16/2001 | Michael John Brosnan | 10010038-1 | 7300 |

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EXAMINER

TRAN, HENRY N

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2674

DATE MAILED: 01/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/811,001

Applicant(s)

BROSNAN, MICHAEL JOHN

Examiner

HENRY N TRAN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2004.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-22 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 16 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/2/04.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This Office action is in response to the applicant's amendment received 7/30/04. The amendments to the specification and the claims have been entered. Claims 1-22 remain pending in this application. Applicant's remarks have been fully considered, with the results set forth as follows.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1, 2, 4-7, 10 are rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over (U.S. Pub. No. 2001/0017934 A1, hereinafter referred to as "Paloniemi").

3. Regarding claims 5-7 and 10, Paloniemi teaches a portable electronic device 1 comprising: a display 8 having a plurality of menu items 20 and a pointer 21 movable by the user to highlight one of the menu items; a motion detector, which is a fingerprint sensor 5, configured for sensing relative movements comprising: up or down motion, leftward or rightward motion, and input motion, e.g., a finger tap; and movement distances, of a users fingertip across the sensor, for generating amount and direction signals, which are read on the claimed: a first and a second set of movement data indicating a first and a second relative movements between the

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electronic device and the users finger (Paloniemi says: “The finger printer sensor 5 ...generate output signal at 13, see Para. [0019], and...the signal at 13 that is output by the detector circuitry 12 comprises information defining the direction and rate of movement of the object over the sensor”, see Para. [0023]); and a controller 3 (a control processor 3) configured to move the pointer 21 to highlight one of the menu items 20, see Para. [0017], [0027], and to select the highlighted menu item based on the movement data, see Para. [0032]. Although Paloniemi, in Para [0032], suggests the use of a finger tap motion for performing a menu item selection; Clearly, one skilled in the art could use any of the left and right motions instead of the tap motion for performing a menu item selection; because this would provide convenient data input, allow more flexibility in choosing movement data for input control, and enhance the usability of the portable electronic device. Paloniemi also teaches: the finger print sensor 5 is an optical sensor, see Para [0019]; and the electronic device is a mobile phone, see Para. [0023]. Claims 5-7 and 10 are therefore rejected.

4. Regarding claims 1, 2, and 4, which are method claims corresponding to the apparatus claims 5, 6, and 10, and are rejected on the same basis et forth in claims 5, 7, and 10 discussed above.

5. Claims 11, 13-15, 18, 19 and 22 are rejected under 35 U.S.C. 102(a) as being anticipated by Paloniemi et al (U.S. Pub. No. 2001/0017934 A1, hereinafter referred to as “Paloniemi”).

6. Regarding claims 14 and 15, Paloniemi further also teach the use of a memory 9 for storing an image of the authorized user's fingerprint, which is a pattern of ridges and valleys that lie across the surface of a user's fingertip detected by the fingerprint sensor 5, and that is read on

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“a first pattern of relative movement between the portable electronic device and an image surface; see Para. [0022]; and a controller 3 for comparing the image of the user's fingerprint generated when “the user swipes his fingertip over the fingerprint sensor 5” and the stored authorized user's fingerprint (the authorized user's fingerprint) for identifying the user of the portable electronic device; see Para. [0022] and [0032]. Claims 14 and 15 are therefore rejected.

7. Regarding claims 11 and 13, Paloniemi also teaches: “allow access to further functions of the terminal”; see Para. [0032]. Claims 11 and 13 are method claims corresponding to the apparatus claim 11, and are rejected on the same basis set forth in claim 11, and by the reasons noted above.

8. Regarding claims 18, 19, and 22, which comprises the claimed elements 14, 15, and 2, and are rejected on the same reasons set forth in claims 14, 15, and 2.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 3, 8, 9, 12, 16, 17, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paloniemi in view of Gordon et al (U.S. Patent No. 6,057,540, hereinafter referred to as “Gordon”).

Paloniemi teaches generally all, including an array of photo detectors 11 for outputting signals representing images, the menu display and the sensor are positioned in the front side of

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the housing, see figures 2 and 3. However, Paloniemi does not teach the motion sensor further comprising the claimed elements: light source, a lens, and the motion sensor is positioned on a backside of the portable electronic device. Gordon teaches an optical motion sensor arrangement 1 comprising light source 2 and a lens 3 for reflecting user's fingertip images detected by the motion detector 9 when a user's finger 7 moves across the sensor surface 5; and the motion sensor arrangement may be altered; see figures 1 and 2; col. 3, lines 34-58; col. 8, lines 42-49; and col. 9, lines 36-43. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the teachings of Gordon in the Paloniemi device for producing the claimed invention because: (i) using the light source and lens would improve the detection of the an imaging surface; and (2) positioning the motion sensor on a back side of the portable electronic device would improve the usability of the user interface. Claims 3, 8, 9, 12, 16, 17, 20 and 21 are dependent upon the base claims 1, 5, 11, 14 and 18, and are rejected on the same basis set forth in base claims, and by the reasons discussed above.

Response to Arguments

11. Applicant's arguments with respect to Specification objections have been fully considered. The amendments to the Specification and applicant's argument have overcome the objections recited in the prior Office action.

12. Applicant's arguments with respect to the rejections of claims 1-22 have been fully considered but they are not persuasive because of the following reasons: (i) Paloniemi does teach selecting a menu item based on movement data; (ii) "a first pattern" is met by "a pattern of ridges

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and valleys that lie across the surface of a user's fingertip" detected by the fingerprint sensor 5 when a user swipes his fingertip over the fingerprint sensor 5; (iii) Paloniemi does teach identifying a user. See the rejections recited above.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. They are U.S. Patent and Publication Nos.: 2002/0130841 and 6,249,606, which teach input devices using optical sensor and/or gesture recognition.

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

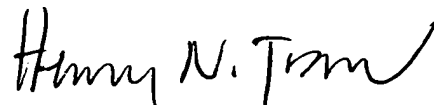
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15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HENRY N TRAN whose telephone number is 703-308-8410.

The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RICHARD A HJERPE can be reached on 703-305-4709. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



HENRY N TRAN
Primary Examiner
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1/21/05